

4.8 Hazards and Hazardous Materials

The following summarizes the results of the *Hazardous Materials Technical Study Grantville Redevelopment Project and Study Area, San Diego, California* (Ninyo & Moore, September 17, 2004). The complete report is provided in Volume II, Appendix H of this EIR.

4.8.1 Existing Conditions

Developed properties within the Project Area are primarily commercial and industrial facilities. The surrounding area consists of primarily residential properties interspersed with commercial and industrial buildings.

4.8.1.1 Aerial Photograph Review

Historical aerial photographs were reviewed to obtain information regarding the history and activities within the Project Area. Based on the review of aerial photographs, the Project Area appears to have been occupied with undeveloped land, agricultural land, and scattered development from at least as early as 1928 until sometime between 1953 and 1966. From that time until the late 1980s, residential and commercial development progressively replaced agricultural land and undeveloped land. By 1989, the Project Area appeared similar to its current configuration.

4.8.1.2 Site Reconnaissance

A limited hazardous materials site reconnaissance was conducted of the Project Area. This reconnaissance involved a visual survey by vehicle of properties of potential environmental concern. Access to properties in the Project Area was limited to observations made from public rights-of-way, such as streets, alleys and sidewalks and the exterior of the properties.

4.8.1.3 Environmental Database Search

An environmental information database search of federal, state, and local databases was performed. The review was conducted to evaluate whether properties within approximately 1,000 feet of the boundaries of the Project Area have been identified as having experienced significant unauthorized releases of hazardous substances or other events with potentially adverse environmental effects. Table 3 of the HMTS (see Volume II Appendix H) provides a summary of the Environmental Database review sites of potential environmental concern. Approximately 36 sites of potential environmental concern within the Project Area and surrounding area were identified as a result of the environmental information database search.

Properties located within the boundaries of the Project Area were listed in the Underground Storage Tank (UST) and Aboveground Storage Tank (AST), Leaking Underground Storage Tank (LUST), Resource Conservation and Recovery Act (RCRA), Department of Environmental Health (DEH) HE17 (permits), and Solid Waste Landfill (SWL) databases. In addition to the properties located within the boundaries of the Project Area, the database search identified several surrounding properties of potential environmental concern. Forty-five unmapped (non-geocoded) facilities were also noted in the database reports as being located within the same zip code as the Project Area. One of these unmapped facilities is a duplicate listing on the LUST database, located at Mission Gorge and Twain Avenue. Eighteen open LUST cases,

located at 14 facilities, were identified in the Project Area. Thirteen RCRA Generator facilities were identified in the Project Area. Three of the unmapped facilities are listed on the SWL database; however, one is a duplicate listing and the second, identified as the North Chollas Burn Site (located several miles south of the Project Area), has been given a status of “clean close.” These facilities are discussed in further detail below. Based on the locations of the 40 remaining unmapped facilities, their distances from the site, and the database on which they were listed, there is a low likelihood of these facilities have negatively impacted the environmental integrity of the Project Area.

4.8.1.4 Environmental Regulatory Agency Inquiries and Document Review

Information regarding properties of potential environmental concern within the boundaries of the Project Area was requested from the Department of Environmental Health (DEH). Sixteen facilities were selected based on information provided in the environmental database search. Figure 4.8-1 depicts the location of these facilities within the Project Area. Table 4.8-1 describes the facilities.

4.8.2 Impact Threshold

For the purpose of this EIR, a significant impact would occur if the proposed Redevelopment project would:

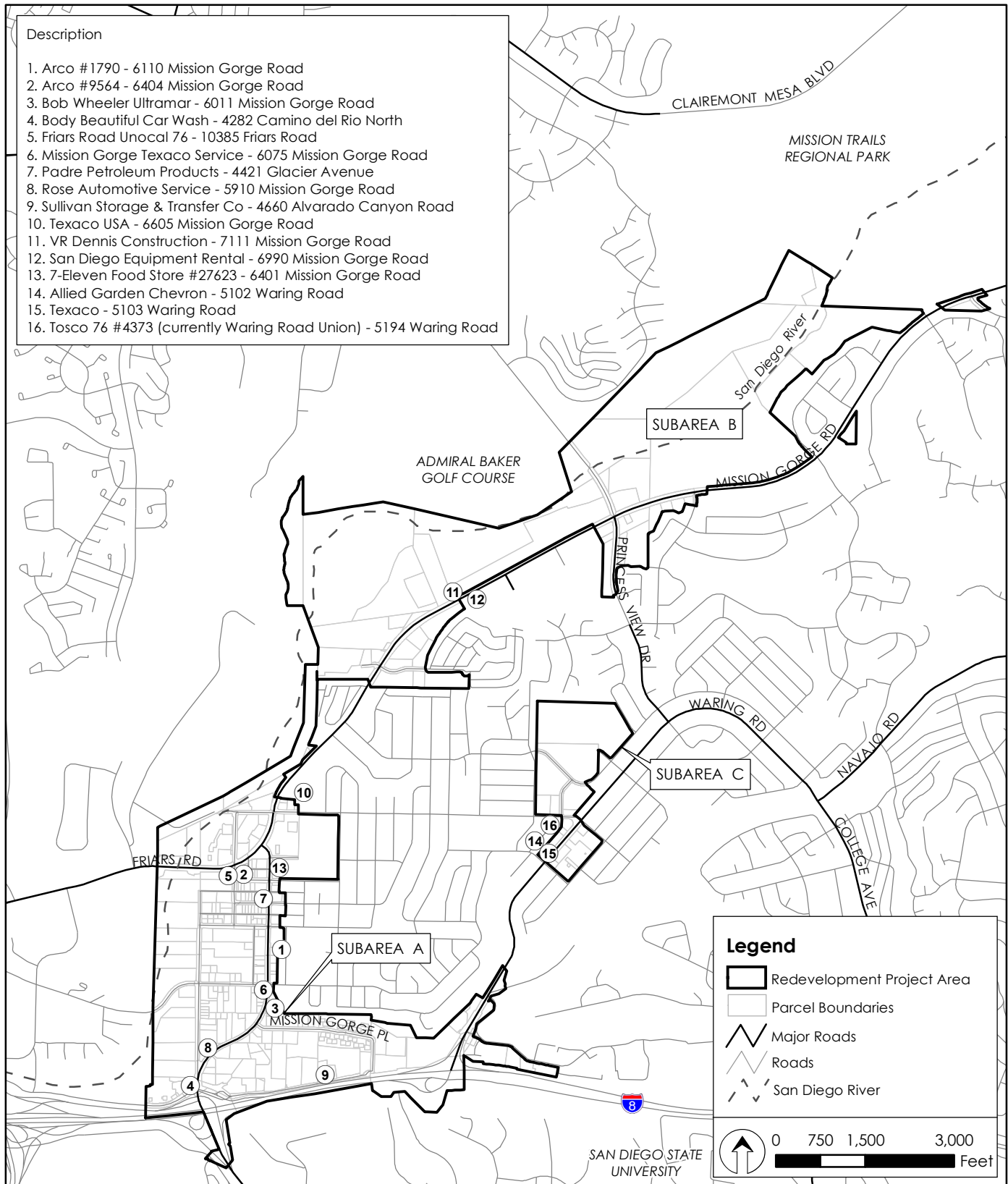
- *Routinely transport, use or dispose of hazardous materials;*
- *Release hazardous materials into the environment;*
- *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*
- *Is included on a list of hazardous materials; and,*
- *Impairs implementation of, or physically interferes with an adopted emergency response plan or emergency evacuation plan.*

4.8.3 Impact

The proposed project will result in the redevelopment of existing land uses in the Project Area. The degree of potential impact will range from not significant, to significant requiring mitigation, depending on the location and type of use proposed of any future redevelopment projects in the Project Area. In general, redevelopment activities provide an opportunity to remediate (or clean up) existing sites of environmental concern, as any existing sites of contamination would need to be cleaned prior to new development. The new development would be required to comply with applicable regulations regarding the use, storage, and transport of hazardous materials.

Potential hazards and hazardous impacts include:

- Uses that would involve the handling, storage, and treatment of hazardous materials;
- Uses that would release hazardous materials into the environment;
- Uses that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.



SOURCE: Ninyo & Moore, SanGIS and BRG Consulting, Inc., 2004

10/19/04



Grantville EIR

Sites of Potential Environmental Concern

FIGURE
4.8-1

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Arco #1790 – 6110 Mission Gorge Road	1	X			Y	The database search indicated that a release of gasoline occurred, and the aquifer was affected. The DEH file review indicates that remedial action has occurred at the facility. The most recent groundwater report recommends that the DEH consider the site for closure. Because the facility has not yet been granted regulatory closure, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the Project Area. The database search indicates that this facility is a permitted site. A violation cited in June 1999 indicated the facility did not properly report, investigate, or respond to an unauthorized release. Open LUST case and RCRA Generator facility.
Arco #9564 – 6404 Mission Gorge Road	2	X	X		Y	During the site reconnaissance, it was observed that the property is now occupied by a Thrifty Oil gasoline station. The database search indicates that a tank release from this gasoline service station property was discovered on August 8, 1986. According to the DEH file review, remedial action is underway; however, analytical data indicates the presence of hydrocarbons in the groundwater. Based on this information, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the subject site. The database search indicates that this facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case. Open LUST Case and RCRA Generator facility.

TABLE 4.8-1
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Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Bob Wheeler Ultramar	3	X			Y	During the site reconnaissance, it was observed that the facility is occupied by Valero. The database search indicates that a tank release for this property was discovered in January 1999. According to the DEH file review, soil and groundwater were affected by a release of waste oil during UST closure. The soil contamination has been delineated; however, quarterly groundwater monitoring continues. Based on this information, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the Project Area. A violation in August 1998 indicates the facility has not entered into a written contract with the tank owner and notified the Hazardous Materials Management Division (HHMD). This facility is an open LUST case.
Body Beautiful Car Wash – 4282 Camino del Rio North	4	X			Y	The database search report indicated that a release at this property was discovered in November 2002. Gasoline was released and, reportedly, a remediation plan has been implemented. According to the DEH file review, site closure has been recommended based on the reduced levels of MTBE and TPH. Because site closure has not been granted, there is moderate to high likelihood that this facility has adversely affected the environmental integrity of the subject site.

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Friars Road Unocal 76 – 10385 Friars Road	5	X			Y	During the site reconnaissance, it was observed that the facility is now occupied by Rose Auto Sales and Car Wash. The database search indicated that a tank release at this property was discovered in May 1994. The file review at the DEH indicated that semi-annual monitoring and recovery of free product continue to be recommended. Based on this information, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the Project Area. In addition, a second tank release was reported for this facility in February 1996. However, this release is listed as “case closed,” and is, therefore, not considered to present an environmental concern to the Project Area at the present time. The database search indicates that the facility is a permitted site. A violation cited in August 1998 indicated the facility has not entered into a written contract with the tank owner and notified the Hazardous Material Management Division (HMMD). This facility is an open LUST case.
Mission Gorge Texaco Service – 6705 Mission Gorge Road	6	X			Y	During the site reconnaissance, it was observed that the facility is now occupied by Auto Port Limited. The database search indicates that a tank release at this property was discovered in July 1992. The DEH file review indicated that quarterly groundwater monitoring will continue and additional wells may be installed to delineate the contaminant plume. Based on this information, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the subject site. The database search indicated that the facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator facility.

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Padre Petroleum Products – 4421 Glacier Avenue	7	X			Y	During the reconnaissance, the property buildings appeared to be unoccupied. The database search indicates that a tank release at this property was discovered in December 1992. Diesel fuel was released, and the aquifer was affected. Reportedly, a preliminary site assessment is underway and further action has been recommended, including extraction of free product and delineation of groundwater contamination. The database search indicates that this facility is a permitted site. Violations of concern were noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator facility.
Rose Automotive Service and Rose Toyota – 5910 Mission Gorge Road and 5921 Fairmount Avenue	8	X			Y	During the site reconnaissance, this property was observed to be occupied by Toyota San Diego. A Phase I Environmental Assessment of the facility was conducted in 1998, and recommended soil and groundwater sampling due to former LUST case on site. Groundwater was found to be contaminated. The contaminant plume has migrated to approximately 75 feet west of Fairmount Avenue, and is confined to the site at the present time. Documentation regarding the release at this facility was not on file.
Sullivan Storage and Transfer Company – 4660 Alvarado Canyon Road	9	X			Y	During the site reconnaissance, this property was observed to be occupied by Qualtech Auto Center. The database search indicated that a tank release at this property was discovered in December 1996. Gasoline was released, and the aquifer was affected. MTBE was found at a maximum concentration of 13,600 parts per million (ppm). Reportedly, a preliminary site assessment is underway. Based on this information, there is a moderate to high likelihood that this facility had adversely affected the environmental integrity of the Project Area. The database search indicated that this facility is a permitted site. No violations were noted in the search. However the facility is associated with an unauthorized release and is an open LUST case and RCRA Generator site.

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Texaco USA – 6605 Mission Gorge Road	10	X	X		Y	During the site reconnaissance, this property was observed to be occupied by a Kentucky Fried Chicken fast food restaurant. The database search indicated that a tank release at this property was discovered in October 1993. Gasoline was released to the groundwater. According to documents reviewed at the DEH, quarterly groundwater monitoring events are being performed at the facility. Based on this information, there is a moderate to high likelihood that this facility has adversely affected the environmental integrity of the Project Area. In addition, one other tank release was reported for this facility. However, this release is listed as "case closed," and is, therefore, not considered an environmental concern to the site at the present time. The database search indicates that this facility is a permitted site. Violations associated with improper tank testing and failure to report results to regulatory agencies are noted in the database report. The facility is an open LUST case.
Texaco – 6075 Mission Gorge Road (not mapped)		X	X			The database search indicates that this facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator site.
Mission Gorge and Twain Mission Gorge Road (not mapped)		X			Y	The database search indicates that this facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator site.

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
City of San Diego Sewer Project/VR Dennis Construction	11		X		Y	During the site reconnaissance, this property was observed to be occupied by ABC Supply Company. The database search indicated that a tank release at this property was discovered in April 1992. Gasoline was released; however, the medium affected is not indicated. Documents reviewed at the DEH indicated that the responsible party has yet to be determined. Based on this information there is a moderate to high likelihood that this facility has adversely impacted the environmental integrity of the Project Area.
San Diego Equipment Rental – 6990 Mission Gorge Road	12		X		Y	During the reconnaissance, this property was observed to be occupied by World RV. The database search indicated that a tank release at this property was discovered in January 1995. Gasoline was released into the groundwater. According to the file review, a remedial action plan has not yet been implemented. Based on this information, there is a moderate to high likelihood that this facility has adversely impacted the environmental integrity of the subject site. The database search indicates that this facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator site.

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Allied Garden Chevron – 5102 Waring Road	13			X	Y	<p>During the site reconnaissance, this property was observed to be a vacant lot. The database search report indicated that a tank release at this property was discovered in August 1993. Waste oil was released, and reportedly, remedial action is underway. Another release involving gasoline was discovered in March 2000. Documents reviewed at the DEH indicated semi-annual groundwater monitoring will continue at the facility. Also, additional wells may be installed off site to facilitate delineation of the contaminant plume. Based on this information, there is a moderate to high likelihood that this facility has adversely impacted the environmental integrity of the Project Area. In addition, one other tank release was reported for this facility. However, this release is listed as "case closed," and is, therefore, not considered to present an environmental concern to the site at the present time.</p> <p>The database search also indicated that this facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with unauthorized release case and is an open LUST case and RCRA Generator site.</p>

TABLE 4.8-1
Summary of Sites of Potential Environmental Concern in the Project Area

Facility	Map ID	Location (Subarea ¹)			Potential Environmental Concern (Y/N) ²	Comments
		A	B	C		
Texaco – 5103 Waring Road	14			X	Y	During the site reconnaissance, this property was observed to be occupied by a Shell station. The database search indicated that a tank release at this property was discovered in January 1992. Gasoline was released to the groundwater. The most recent report on file at the DEH indicated there is still free product in one well, and significant hydrocarbon concentrations present in other wells. Based on this information, there is a moderate to high likelihood that this facility has adversely impacted the environmental integrity of the Project Area. In addition, one other tank release was reported for this facility. However, this release is listed as “case closed,” and is, therefore, not considered to present an environmental concern to the site at the present time. The database search indicates that the facility is a permitted site. Violations of concern were not noted in the database report. However, the facility is associated with an unauthorized release case and is an open LUST case and RCRA Generator site.
Tosco 76 #4373 – 5194 Waring Road	15			X	Y	The database search indicates that a tank release for this property was discovered in July 1988. Gasoline was released into the groundwater. Quarterly groundwater monitoring is being performed at the site, according to documents reviewed at the DEH. Based on this information, there is a moderate to high likelihood that this facility has adversely impacted the environmental integrity of the Project Area. The database search indicated that this facility is a permitted site. A violation cited February 1998 indicated the facility has not entered into a written contract with the tank owner and notified the Hazardous Materials Management Division (HHMD). This facility is an open LUST case.

Source: Ninoyo and Moore, 2004.

- Development on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Eighteen open LUST cases, located at 14 facilities, were identified in the Project Area. Based on the information obtained from the environmental database search and DEH documents reviewed, there is a moderate to high likelihood that these facilities have adversely impacted the environmental integrity of the Project Area. Figure 4.8-1 indicates the location of the 14 facilities and Table 4.8-1 describes each of these facilities.

Thirteen RCRA Generator facilities were identified in the Project Area. Three of the facilities are associated with LUST cases; therefore, there is a moderate to high likelihood that these three facilities have adversely impacted the environmental integrity of the Project Area. Based on the nature of the remaining ten facilities and the fact that they are not associated with unauthorized releases, there is a low likelihood that these facilities have adversely impacts the environmental integrity of the site to date. Figure 4.8-1 indicates the location of these facilities and Table 4.8-1 describes each of these facilities.

The horizon of the redevelopment plan is 20-30 years. During this timeframe, changes are likely to occur that will alter the status of the various potential hazardous materials sites identified in the Project Area. For each subsequent development project or improvement that occurs within the Project Area, the status of any particular site or sites affected by a specific project action (e.g., new commercial development or right-of-way improvements) will need to be evaluated through a Phase I Hazardous Materials Environmental Site Assessment, and in some instances, additional assessment (Phase II) and site remediation. Therefore, implementation of Mitigation Measures HM1, HM2 and HM3 would reduce potential impacts from these facilities to a level less than significant.

The relative security of a particular hazardous waste site, or other site of environmental concern, depends on the proposed development proposal for the specific parcels. Documented soil and groundwater contamination located at facilities within the Project Area is being addressed by the individual responsible parties. Remediation goals are based on cleanup levels designed to protect water quality. However, residual contamination may present non-water quality risks to the environment, such as human health, or create a condition of pollution or nuisance not addressed by the regulatory agency cleanup requirement. Residual contamination may be of particular concern during subsurface construction activities, when the contaminant pathway is often the most direct and shortest. Therefore, implementation of Mitigation Measure HM1 at the time a specific development proposal is proposed, will allow the potential impact to be evaluated and, if necessary, a specific mitigation (or remediation) plan be devised. The implementation of Mitigation Measure HM4 would reduce the potential impact as a result of residual contamination, if found to be present, to less than a level of significance.

In general, sites containing contaminated soil and groundwater are known to regulatory agencies. Such sites are in programs to remedy these sites, and many of the sites within the Project Area are anticipated to advance toward, or achieve acceptable remedies during the life of the redevelopment plan. However,

the potential exposure of people or property to unremediated soils, groundwater, or surface water, or any other sources of existing contamination within the Project Area as properties are redeveloped is considered a significant impact. Implementation of Mitigation Measures HM1, HM5 and HM6 will reduce the impact to a level less than significant.

Surveys to test for asbestos-containing building materials and lead based paint are also required by the City of San Diego to be performed at sites with existing buildings. Buildings that contain asbestos will need to be remediated during demolition. Implementation of Mitigation Measure HM1 would ensure proper asbestos removal is conducted within the Project Area.

No impact associated with impairing the implementation of, or physical interference with an adopted emergency response plan or emergency evacuation plan is anticipated. Subsequent redevelopment activity in the Project Area will be consistent with the Community Plans in which the project is located. As such, the project would not involve the closure of evacuation routes or interfere with an emergency response plan.

4.8.4 Significance of Impact

The potential presence of hazardous materials and existing areas of contamination in the Project Area is considered a significant impact.

4.8.5 Mitigation Measures

- HM1** Prior to the development of specific properties within the Redevelopment Project Area, a Phase I Environmental Site Assessment (ESA) shall be performed. The Phase I ESA shall identify the potential for the site to contain hazardous materials (including asbestos and lead-based paints) and contaminated soils. Recommendations of the Phase I ESA shall be implemented to ensure that the site is suitable for redevelopment activities. Recommendations of the Phase I ESA may range from no further action, to preparation of a Phase II ESA that identifies specific further action required in order to remediate the hazardous materials so that they do not pose a significant health risk.
- HM2** Any USTs that are removed during redevelopment activities shall be removed under permit by the DEH. The soil and groundwater within the vicinity of the USTs shall be adequately characterized and remediated, if necessary, to a standard that would be protective of water quality and human health, based on the future site use.
- HM3** In the event that not previously identified USTs or undocumented areas of contamination are encountered during redevelopment activities, work shall be discontinued until appropriate health and safety procedures are implemented. A contingency plan shall be prepared to address contractor procedures for such an event, to minimize potential for costly construction delays. In addition, either DEH or the Regional Water Quality Control Board (RWQCB), depending on the nature of the contamination, shall be notified regarding the contamination. Each agency and program within the respective agency has its own mechanism for initiating an investigation. The

appropriate program shall be selected based on the nature of the contamination identified. The contamination remediation and removal activities shall be conducted in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the appropriate regulatory agency.

- HM4** A risk assessment shall be performed at all facilities in the Project Area where contamination has been identified or is discovered during activities, and at which soil is to be disturbed, to address non-water quality risks posed by any residual contamination, and to establish appropriate mitigation measures (e.g., natural attenuation, active remediation, and engineering controls) that would be protective of human health and the environment. All assessment and remediation activities shall be conducted in accordance with a Work Plan which is approved by the City of San Diego having oversight of the activities.
- HM5** During construction activities, it may be necessary to excavate existing soil at a specific project site, or to bring fill soils to the site from off-site locations. In areas that have been identified as being contaminated or where soil contamination is suspected, appropriate sampling is required prior to disposal of excavated soil. Complete characterization of the soil shall be prepared prior to any excavation or removal activity. Contaminated soil shall be properly disposed at an off-site facility. Fill soils also shall be sampled to ensure that imported soil is free of contamination.
- HM6** Caution shall be taken during excavation activities near existing groundwater monitoring wells, so that they are not damaged. Existing groundwater monitoring wells may have to be abandoned and reinstalled if they are located in an area that is undergoing redevelopment.

4.8.6 Conclusion

Implementation of Mitigation Measures HM1, HM2, HM3, HM4, HM5 and HM6 will reduce the potential impact related to hazardous materials and hazards to a level less than significant.

4.9 Paleontological Resources

4.9.1 Existing Conditions

Paleontological resources represent a limited, nonrenewable, and impact-sensitive scientific and educational resource. As defined in this section, “paleontological resources” (i.e., fossils) are the remains and/or traces of prehistoric plant and animal life exclusive of man. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities.

Paleontological resource sensitivities are rated for individual formations and recognize the important relationship between fossils and the geologic formations within which they are entombed. A high sensitivity is assigned to geologic formations known to produce vertebrate fossil remains or are considered to have the potential to produce such remains. A moderate sensitivity is assigned to geologic formations that are judged to have a strong, but unproven potential for producing important fossil remains. A marginal sensitivity is assigned to geologic formations that are composed either of pyroclastic volcanic or meta sedimentary rocks, but which nevertheless have a limited probability of producing fossil remains from certain sedimentary lithologies at localized outcrops.

The Project Area is underlain by fill associated with the development of individual parcels, alluvium and slopewash, terrace deposits, Lindavista Formation, Stadium Conglomerate, Friars Formation, and the Santiago Peak Volcanics. Imported fill used for development sites is required to be screened for paleontological resources prior to the use for development, therefore, there is no paleontological resource sensitivity associated with this fill material. Alluvium and slopewash are not consolidated, and do not contain important paleontological resources. Table 4.9-1 identifies the paleontological resource sensitivity of the geologic formations discussed above.

TABLE 4.9-1
Paleontological Resource Sensitivity

Geologic Formation	Marginal Sensitivity	Moderate Sensitivity	High Sensitivity
Terrace Deposits		X	
Lindavista Formation		X	
Stadium Conglomerate		X	
Friars Formation			X
Santiago Peak Volcanics	X		

Source: Deméré, Thomas and Walsh, Stephen, 1993.

There are two types of terrace deposits, river and marine. Marine terrace deposits have a high paleontological sensitivity; whereas river terrace deposits have a moderate sensitivity. Since the San Diego

River is located within, and adjacent to the Redevelopment Project Area, river terrace deposits underlain portions of the Redevelopment Project Area. River terrace deposits include coarse-grained, gravelly sandstones, pebble and cobble conglomerates, and claystone.

Santiago peak volcanic areas contain either metasedimentary rocks or metavolcanic rocks and the paleontological sensitivity of Santiago Peak Volcanics varies depending on which type of rock is contained in the formation. The metavolcanic portion makes up a bulk of this formation in San Diego County. A portion of the Redevelopment Project Area is underlain with the metavolcanic portion of the Santiago Peak Volcanics, and is considered to be of marginal sensitivity.

4.9.2 Impact Threshold

For purposes of this EIR a significant impact will occur if the proposed project would:

- *Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature.*

Because paleontological resources are largely a buried resource, there is no way to accurately predict what fossils are present within a site or their individual significance to the scientific community before they are discovered. For the purposes of this EIR, impacts to paleontological resources are considered significant if future redevelopment activities involve grading in areas underlain by geologic formations that exhibit a moderate to high paleontological resource potential.

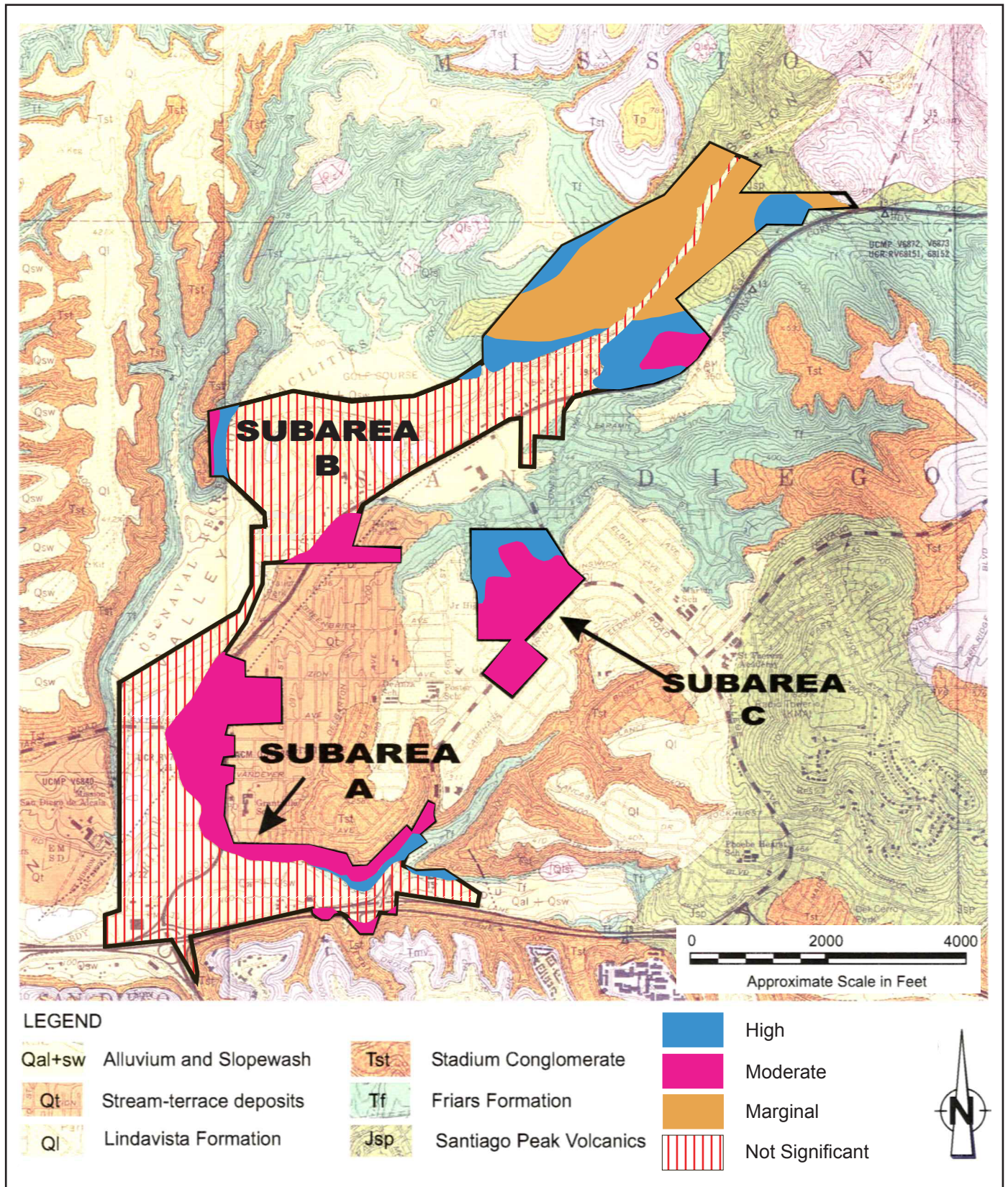
4.9.3 Impact

Paleontological resources are typically impacted when earthwork activities such as mass excavation projects cut into geological deposits (formations) within which fossils are buried. These impacts are in the form of physical destruction of fossil remains. Since fossils are the remains of prehistoric animal and plant life, they are considered to be non-renewable. Such impacts are significant, and under CEQA Guidelines, require mitigation.

As identified in Table 4.9-1, the Friars Formation has a high potential for producing significant paleontological resources; the Terrace Deposits, Lindavista Formation and Stadium Conglomerate have a moderate potential for producing significant paleontological resources; and the Santiago Peak Volcanics have a marginal potential for producing significant paleontological resources.

As shown in Figure 4.9-1, the majority of the Redevelopment Project Area does not have a significant potential to yield paleontological resources. However, the eastern portion of Subarea A has a moderate and high paleontological resource sensitivity, several portions of Subarea B have moderate and high paleontological resource sensitivity, and Subarea C has a moderate and high paleontological resource sensitivity.

The specific location and nature of future redevelopment projects is currently unknown. However, it is anticipated that redevelopment activities will involve grading and earthwork with excavations into these formations. Any future earthwork involving disturbance to the Terrace Deposits, Lindavista Formation,



SOURCE: Ninyo & Moore, 2004

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Paleontological Resources Sensitivity Map

FIGURE
4.9-1

Stadium Conglomerate, and Friars Formation within the Project Area has the potential to impact paleontological resources. This is considered a significant impact. Implementation of Mitigation Measure PR1 will reduce the impact to paleontological resources to a level less than significant. Mitigation Measure PR1 requires monitoring of project site grading, and recovery and proper curation of fossils should significant fossils be encountered during site grading.

4.9.4 Significance of Impact

Future redevelopment activities have the potential to result in the substantial excavation of potential fossil-bearing geologic formations and the impact is considered significant.

4.9.5 Mitigation Measures

The following measures have been developed by the City of San Diego to reduce the project-related Paleontological impact to below a level of significance. These measures encompass a comprehensive program to protect paleontological resources should they be found at a construction site. The mitigation program is consistent with standard programs employed at other sites within the City of San Diego. Implementation of these measures would allow preservation and future scientific study of any important Paleontological resources encountered, thereby reducing the potential impact to below a level of significance. This mitigation measure applies to projects located within the Terrace Deposits, Linda Vista Formation, stadium conglomerate and friars formation only.

PR1 Prior to preconstruction (precon) meeting:

1. Land Development Review (LDR) Plan Check

Prior to the issuance of a Notice to Proceed (NTP) or any permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the Assistant Deputy Director (ADD) of LDR shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

2. Letters of Qualification have been Submitted to ADD

Prior to the NTP, and/or issuance of a Grading Permit, Demolition Permit or Building Permit, the applicant shall provide a letter of verification to the ADD of LDR stating that a qualified Paleontologist, as defined in the City of San Diego Paleontological Guidelines, has been retained to implement the monitoring program.

3. Second Letter Containing Names of Monitors has been sent to Mitigation Monitoring Coordination (MMC).

a. At least thirty days prior to the Preconstruction Meeting (Precon), a second letter shall be submitted to MMC which shall include the name of the Principal Investigator (PI) and the names of all persons involved in the Paleontological Monitoring of the project.

b. MMC will provide Plan Check with a copy of both the first and second letter.

4. Records Search Prior to Precon Meeting

At least thirty days prior to the Precon meeting, the qualified Paleontologist shall verify that a records search has been completed, and updated as necessary, and be prepared to introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities. Verification includes, but is not limited to, a copy of a confirmation letter from the San Diego Natural History Museum, other institution, or, if the record search was in-house, a letter of verification from the PI stating that the search was completed.

Precon Meeting:

1. Monitor Shall Attend Precon Meetings

- a. Prior to beginning of any work that requires monitoring, the Applicant shall arrange a Precon Meeting that shall include the Paleontologist, Construction Manager and/or Grading Contractor, Resident Engineer (RE), Building inspector (BI), and MMC. The qualified Paleontologist shall attend any grading related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring Program with the Construction Manager and/or Grading Contractor.
- b. If the Monitor is not able to attend the Precon Meeting, the RE, or BI as appropriate, shall schedule a focused Precon Meeting for MMC, Monitors, Construction Manager and appropriate Contractor's representatives to meet and review the job on-site prior to start of any work that requires monitoring.

2. Identify Areas to be Monitored

At the Precon Meeting, the Paleontologist shall submit to MMC a copy of the site/grading plan (reduced to 11x17) that identifies areas to be monitored.

3. When Monitoring Will Occur

Prior to the start of work, the Paleontologist also shall submit a construction schedule to MMC through the RE, or BI, as appropriate, indicating when and where monitoring is to begin and shall notify MMC of the start date for monitoring.

During Construction:

1. Monitor Shall be Present During Grading/Excavation

- a. The qualified Paleontologist shall be present full-time during the initial cutting of previously undisturbed formations with high and moderate resource sensitivity, and shall document activity via the Consultant Site Visit Record (form). This record shall be faxed to the RE, or BI as appropriate, and MMC each month.

2. Discoveries:

a. Minor Paleontological Discovery

In the event of a minor Paleontological discovery (small pieces of broken common shell fragments or other scattered common fossils) the Paleontologist shall notify the RE, or BI as appropriate, that a minor discovery has been made. The determination of significance shall be at the discretion of the qualified Paleontologist. The Paleontologist shall continue to monitor the area and immediately notify the RE, or BI as appropriate, if a potential significant discovery emerges.

b. Significant Paleontological Discovery

In the event of a significant Paleontological discovery, and when requested by the Paleontologist, the city RE, or BI as appropriate, shall be notified and shall divert, direct, or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains. The determination of significance shall be at the discretion of the qualified Paleontologist. The Paleontologist with Principal Investigator (PI) level evaluation responsibilities shall also immediately notify MMC staff of such finding at the time of discovery. MMC staff will coordinate with appropriate LDR staff.

3. Night Work:

a. If night work is included in the contract

When night work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.

(2) The following procedures shall be followed:

(a) No Discoveries

In the event that nothing was found during the night work, the PI shall record the information on the Site Visit Record Form.

b. Minor Discoveries

All Minor Discoveries shall be processed and documented using the existing procedures under 2. a., with the exception that the RE shall contact MMC by 9 A.M. the following morning.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures under 2.b., shall be followed, with the exception that the RE shall contact MMC by 8 A.M. the following morning to report and discuss the findings.

d. If night work becomes necessary during the course of construction

The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

The RE, or BI, as appropriate, shall notify MMC immediately.

e. All other procedures described above shall apply, as appropriate.

4. Notification of Completion:

The Paleontologist shall notify MMC and the RE, or BI as appropriate, of the end date of monitoring.

Post Construction

The Paleontologist shall be responsible for preparation of fossils to a point of curation as defined by the City of San Diego Paleontological Guidelines:

1. Submit Letter of Acceptance from Local Qualified Curation Facility.

The Paleontologist shall be responsible for submittal of a letter of acceptance to ADD of LDR from a local qualified curation facility. A copy of this letter shall be forwarded to MMC.

2. If Fossil Collection is not Accepted, Contact LDR for Alternatives

If the fossil collection is not accepted by a local qualified facility for reasons other than inadequate preparation of specimens, the project Paleontologist shall contact LDR, to suggest an alternative disposition of the collection. MMC shall be notified in writing of the situation and resolution.

3. Recording Sites with San Diego Natural History Museum

The Paleontologist shall be responsible for the recordation of any discovered fossil sites at the San Diego Natural History Museum.

4. Final Results Report

a. Prior to the release of the grading bond, two copies of the Final Results Report (even if negative), which describes the results, analysis, and conclusions of the above Paleontological Monitoring Program (with appropriate graphics) shall be submitted to MMC for approval by the ADD of LDR.

b. MMC shall notify the RE or BI, as appropriate, of receipt of the Final Results Report.

4.9.6 Conclusion

Implementation of Mitigation Measure PR1 will reduce the impact to paleontological resources to a level less than significant.

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